CLAIM AMENDMENTS

1. (CURRENTLY AMENDED) A method for electronic tuning of the frequency of the read oscillation to the frequency of the stimulation oscillation in a Coriolis gyro ~~(1')~~, wherein

- the resonator ~~(2)~~ of the Coriolis gyro ~~(1')~~ has a disturbance force applied to it such that

a) the stimulation oscillation remains essentially uninfluenced, and

b) the read oscillation is changed such that a read signal, which represents the read oscillation, contains a corresponding disturbance component, wherein

- the frequency of the read oscillation is controlled such that the magnitude of the disturbance component, which is contained in the read signal, is as small as possible.

2. (ORIGINAL) The method as claimed in claim 1, characterized in that the disturbance force is produced by a disturbance signal which is added to the respective control/reset signals for control/compensation of the read oscillation.

3. (CURRENTLY AMENDED) The method as claimed in claim 1 ~~or 2~~, characterized in that the disturbance signal is an alternating signal.

4. (ORIGINAL) The method as claimed in claim 3, characterized in that the disturbance signal is at a fixed disturbance frequency, and the disturbance component is determined from the read signal by demodulation of the read signal at the fixed disturbance frequency.

5. (CURRENTLY AMENDED) The method as claimed in claim 1 ~~or 2~~, characterized in that the disturbance signal is band-limited noise, and the disturbance component is demodulated from the read signal by correlation of the disturbance signal with the read signal.

6. (CURRENTLY AMENDED) The method as claimed in claim ~~one of claims~~ 2 ~~to 5~~, characterized in that the disturbance signal is added to the output signal from the rotation rate control loop, and the disturbance component is determined from a signal which is applied to a quadrature regulator ~~(17)~~ in the quadrature control loop, or is emitted from it.

7. (CURRENTLY AMENDED) The method as claimed in claim ~~one of claims~~ 2 ~~to 5~~, characterized in that the disturbance signal is added to the output signal from the quadrature control loop, and the disturbance component is determined from a signal which is applied to a rotation rate regulator ~~(21)~~ in the rotation rate control loop, or is emitted from it.

8. (CURRENTLY AMENDED) The method as claimed in claim ~~one of claims~~ 2 ~~to 5~~, characterized in that the disturbance signal is added to the output signal from the quadrature control loop, and the disturbance component is determined from a signal which is applied to a quadrature regulator ~~(17)~~ in the quadrature control loop, or is emitted from it.

9. (CURRENTLY AMENDED) The method as claimed in claim ~~one of claims~~ 2 ~~to 5~~, characterized in that the disturbance signal is added to the output signal from the rotation rate control loop, and the disturbance component is determined from a signal which is applied to a rotation rate regulator ~~(21)~~ in the rotation rate control loop, or is emitted from it.

10. (CURRENTLY AMENDED) The method as claimed in claim 2 ~~one of the preceding claims~~, characterized in that the frequency of the read oscillation is controlled by controlling the intensity of an electrical field in which a part of the resonator ~~(2)~~ of the Coriolis gyro ~~(1')~~ oscillates.

11. (CURRENTLY AMENDED) A Coriolis gyro ~~(1')~~ which has a rotation rate control loop and a quadrature control loop, characterized by a device for electronic tuning of the frequency of the read oscillation to the frequency of the stimulation oscillation, having:

- a disturbance unit ~~(26)~~ which passes a disturbance signal to the rotation rate control loop or to the quadrature control loop,
- a disturbance signal detection unit ~~(27)~~, which determines a disturbance component which is contained in a read signal (which represents the read oscillation) and has been produced by the disturbance signal, and
- a control unit ~~(28)~~, which controls the frequency of the read oscillation such that the magnitude of the disturbance component, which is contained in the read signal, is as small as possible.

12. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim 11, characterized in that the disturbance unit ~~(26)~~ passes the disturbance signal to the rotation rate control loop, and the disturbance signal detection unit ~~(27)~~ determines the disturbance component from a signal which is applied to a quadrature regulator ~~(17)~~ in the quadrature control loop, or is emitted from it.

13. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim 11, characterized in that the disturbance unit ~~(26)~~ passes the disturbance signal to the quadrature control loop, and the disturbance signal detection unit ~~(27)~~ determines the disturbance component from a signal which is applied to a rotation rate regulator ~~(21)~~ in the rotation rate control loop, or is emitted from it.

14. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim 11, characterized in that the disturbance unit ~~(26)~~ passes the disturbance signal to the rotation rate control loop, and the disturbance signal detection unit ~~(27)~~ determines the disturbance component from a signal which is applied to a rotation rate regulator ~~(21)~~ in the rotation rate control loop, or is emitted from it.

15. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim 11, characterized in that the disturbance unit ~~(26)~~ passes the disturbance signal to the quadrature control loop, and the disturbance signal detection unit ~~(27)~~ determines the disturbance component from a signal which is applied to a quadrature regulator ~~(17)~~ in the quadrature control loop, or is emitted from it.

16. (CURRENTLY AMENDED) The Coriolis gyro ~~(1')~~ as claimed in claim ~~one of claims~~ 11 ~~to 15~~, characterized in that the disturbance signal is an alternating signal at a fixed disturbance frequency, and the device for electronic tuning of the read oscillation frequency and stimulation oscillation frequency has a demodulation unit ~~(27)~~, which demodulates the read signal at the fixed disturbance frequency and thus determines the disturbance component which is contained in the read signal.